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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,787	10/24/2003	Sehat Sutardja	MP0400	2332

26703 7590 02/28/2008

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SUITE 200
TROY, MI 48098

EXAMINER	
PATEL, RAJNIKANT B	
ART UNIT	**PAPER NUMBER**
2838	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/693,787	SUTARDJA, SEHAT	
	Examiner	Art Unit	
	Rajnikant B. Patel	2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 December 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-243* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed on 4 December 2007 have been fully considered but they are not persuasive. Because applicant agree on page 20 (20 of 25) of remark Biagi use digital processor with low drop out regulator which means it is controlling the digital signal. When, as in the instant case, the Patent office finds, in the words of 35 U.S.C. 103, "differences between the subject matter sought to be patented and the prior art," it may not, without some basis in the logic of scientific principle, merely allege that such differences are either obvious or of no patentable significance and there by force an appellant to prove conclusively that it is wrong. Such is not and never has been the rule relating to burden of proof in this court. What proof an applicant must offer to overcome a position of the Patent office supporting a rejection can be determined only on the basis of the facts in any particular case. In the instant case, however, the office position relating to the alleged obviousness of the differences which exist between the claimed invention and the prior art seems to us to be founded both on logic and sound scientific principle. We find that appellant failed to rebut this position. In re Soil, 137 USPQ 797(CCPA1963).

In re Rinehart, 189 USPQ 143 (CCPA 1976) A prima facie case of obviousness is established when the teachings prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art. Once such a case is

established, it is incumbent upon appellant to go forward with objective evidence of unobviousness. In re Fielder, 471 F.2d 640, 176 USPQ 300 (CCPA 1973). One cannot show non-obviousness by attacking the references individually where the rejection is based on a combination of references. In re Young, 159 USPQ 725 (CCPA 1968). A reference is to be considered not only for what it expressly states, but for what it would reasonably have suggested to one of the ordinary skill in the art. In re DeLisle, 160 USPQ 806 (CCPA 1969). The test for obviousness under 35 U.S.C. 103 is not the express suggestion of the claimed invention in any or all of the reference but what the references taken collectively would suggest. In response to applicant's argument regarding motivation. The examiner recognizes that the references can not be arbitrarily combined and that there must be some reason why one in the skilled in the art would be motivated to make the proposed combination of primary and secondary references. In re Nomiya, 184 USPQ 607(CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. In re Simon, 174 USPQ 114 (CCPA 1972); In re Mclaughlin, 170 USPQ 209 (CCPA 1971). References are evaluated by what they suggest to one versed in the art. Rather than by their specific disclosures. In re Bozek, 163 USPQ 545 (CCPA 1969). All that is required to show obviousness is that the applicants "make his claimed invention merely by applying knowledge clearly present in the prior. Section 103 requires us to presume full knowledge by the inventor of the prior art in the field of his endeavor". I re Winslow, 53 CCPA 1574, 1578,365 F, 2d 1017,

1020, 151 USPQ 48, 50-51 (1966). Under that test, appellant fails. No commercial success is claimed, nor is any other factor indicating non- obviousness shown to exist.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1,3-23,75, 77-97,187-188 and 240-243 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al. (U.S. Patent # 6,853,568) in combination with Riggio et al. (U.S. patent # 6,493,242) and further in combination with Wittenbreder, Jr. (U.S. Patent # 5,402,329).

Li et al. disclose the claimed subject matters a coupled inductor for converting energy from a source of input to an output (figure 1-8), including a at least two conduction switches (figure 1, item 112 and 115), at least two inductor (figure 1, item 114 and 117), at least two freewheeling switches (figure 1, item 113 and 116), a drive circuit (column 2, line 25-30), a synchronous rectifier (column 2, line 30-35), series structure and turn ratio (column 2, line 45-50), However Li et al. does not disclose the utilization of the technique for a drive circuit has a duty cycle approximately 50%, the drive signals synchronous to clock signals, a fly back topology, a boost topology, a voltage ratio and a common core inductors that mutually cancel DC currents due to their respective

polarities and that have a coefficient of coupling approximately equal to one. Riggio et al. teaches the utilization of the similar technique a drive circuit has a duty cycle approximately 50%, the drive signals synchronous to clock signals (column 6, line 20-50), a fly back topology (column 11, line 35-50), a boost topology (column 7, line 25-40), a voltage ratio (column 22, line 15-35) and Wittenbreder, Jr. teaches the utilization of the similar technique for a common core inductors that mutually cancel DC currents due to their respective polarities and that have a coefficient of coupling approximately equal to one(figure 11, column 5, line 20-65 and column 19, line 5-60) It would have been obvious one having ordinary skill in the art at the time the invention was made to modify Li et al.'s voltage regulator by utilizing the technique taught by Riggio et al. and Wittenbreder, Jr. for the purpose of increase the efficiency of the voltage regulator circuit.

3. Claims 2, 76 and 155-172 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al. (U.S. Patent # 6,853,568) in combination with Riggio et al. (U.S. patent # 6,493,242) and further in combination with Wittenbreder, Jr. (U.S. Patent # 5,402,329), Wittenbreder (U.S. Patent # 6,822,427) and A.F. Podell (U.S. Patent # 3,529,233).

Li et al. in combination with Riggio et al. disclose the claimed subject matters as explained in the claims 1, 75 and 155 above, except the utilization of the technique for the coefficient of coupling is approximately at least, 0.99 boosts and fly back topology, and a lattice network. Wittenbreder teaches the utilization of the similar technique for the coefficient of coupling is approximately at least, 0.99, boost and fly back topology

(column 27, line 30-50 and column 28, line 10-25) and A.F. Podell teaches the utilization of the technique for a lattice network (column 1, line 55-70). It would have been obvious one having ordinary skill in the art at the time the invention made to modify Li et al. in combination with Riggio et al.'s regulating circuit by utilizing the technique taught by Wittenbreder and A. F. Podell for the purpose providing a balanced input and one pole phase shifting.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rajnikant B. Patel whose telephone number is 571-272-2082. The examiner can normally be reached on 6.30-5.00; m-f.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Akm Ullah can be reached on 571-272-2361. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rajnikant B Patel/
Primary Examiner, Art Unit 2838

Rajnikant B Patel
Primary Examiner
Art Unit 2838

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